

PH450 Report Marking Allocation

Student	Title	Supervisor	Independent	Chair
Anderson Harry	Ion Channel Laser with Large Oscillation Amplitude	Bernhard Ersfeld	Colin Whyte	Adrian W. Cross
McKnight Amy	Electron Beam Therapy	Dino Jaroszynski	Ross Gray	Adrian W. Cross
McWeillis Hamish	Plasma Gratings as Optical Elements with High Damage Thresholds for Ultrashort, Extremely Intense Laser Pulses	Dino Jaroszynski	Colin Whyte	Adrian W. Cross
McCormick Cameron	Opto-mechanics of Bose-Einstein Condensates in Optical Cavities	Gian-Luca Oppo	Elmar Haller	Aidan Arnold
Dickson Euan	Investigation of spectral characteristics of UV LEDs	Jochen Bruckbauer	Keith Mathieson	Alan Kemp
Sarguroh Khadija	Quantum Random Number Generation	Daniel Oi	Benjamin Hourahine	Alison Yao
Flouri Sofia	Characterising Digital Camera Sensors	Daniel Oi	Sebastian van de Linde	Alison Yao
Sattery Susan	Scattering of light beams carrying angular momentum	Francesco Papoff	David McKee	Andrew Daley
Parsonage Christopher	Propagation of orbital-angular momentum beams through a scattering medium	Paul Griffin	Francesco Papoff	Andrew Daley
Chan Matthew	Scattering of twisted light by chiral molecules	Robert Cameron	David McKee	Andrew Daley
Brodie Seoras	Atomic Processes for Astrophysical Plasmas	Junjie Mao	Ross Gray	Bengt Eliasson
Crampsey Ben	Development of field-pickup diagnostics for high-power microwave signal analysis	Philip MacInnes	Alan Young	Bengt Eliasson
Bacon Ewan	Laser-driven ion acceleration from ultrathin foils undergoing relativistic self-induced transparency	Robbie Wilson	Bernhard Ersfeld	Bengt Eliasson
Getchell Claire	Nonlinear waves in plasmas	Adam Noble	Alan Young	Brian McNeil
O'Connor Kieran	Simulation and measurement of folded-waveguide structure	Craig W. Robertson	Bernhard Ersfeld	Brian McNeil
McCulluch Kerr	Engineering semiconductor defects for quantum electronics	Alessandro Rossi	Carol Trager-Cowan	Carol Trager-Cowan
Miller Lennard	Construction and Characterisation of a 3D Printed Holographic Microscope	Brian Patton	Keith Mathieson	Carol Trager-Cowan
Mir Tariq	Topological Insulators	Benjamin Hourahine	Oliver Henrich	Daniel Oi
Abbot James	Quantum transport in superconducting wires and cold atoms	Andrew Daley	Peter Kirkton	Daniel Oi
Foia Patricia	Pathological modifications in proteins detected by their intrinsic fluorescence	Olaf Rolinski	Gail McConnell	David McKee
Hamilton Scott	Monte Carlo Modelling of Particle Beam-Matter Interaction	Bernhard Hidding	Samuel Wiggins	Dino Jaroszynski
Lee Lok	Terahertz radiations driven by two-colour lasers in gas	Zhengming Sheng	Wentao Li	Dino Jaroszynski
McCullough Jake	Accelerometer-based Motion Tracking	Paul Griffin	Brian Patton	Erling Riis
Schroff Paul	Holographically generated light potentials for quantum simulation	Stefan Kuhr	Elmar Haller	Erling Riis
Maneely Scott	Atomic Physics Game Design for Outreach Activities	Stuart Ingleby	Oliver Henrich	Erling Riis
Ferguson Kieran	Photon statistics of small lasers	Thorsten Ackemann	Elmar Haller	Erling Riis
Cairney Stephanie	Computational Methods in Single-Molecule Localization Microscopy	Sebastian van de Linde	Brian Patton	Gail McConnell
Barr Kristopher	Coherent Perfect Amplification of Light	John Jeffers	Francesco Papoff	Gian-Luca Oppo
Mallon Stephen	Two-Photon Young's Beamsplitters for Communication	John Jeffers	Francesco Papoff	Gian-Luca Oppo
Keenan Alex	Soliton Glass	Gian-Luca Oppo	Alison Yao	Gordon Robb

Bennett Daniel	Spectroscopy of Dy-doped crystals for mid-IR laser applications	Alan Kemp	Paul Edwards	Jennifer Hastie
Adair Andrew	Photonic Neurons: Spiking information processing with lasers	Antonio Hurtado	Olaf Rolinski	Jennifer Hastie
Monaghan Martin	Mapping brain activity: A multi-channel fiber photometry device	Niall McAlinden	Gail McConnell	Jennifer Hastie
McCallum Abbie	Cold Atom-Light Interactions	Gordon Robb	Aidan Arnold	John Jeffers
Chisholm Alice	Interactive Physics Simulations	Gordon Robb	Benjamin Hourahine	John Jeffers
McDermid Lewis	Digital Feedback For Control of Quantum Optics Experiments	Paul Griffin	Lucia Caspani	Jonathan Pritchard
MacLean Craig	Building A 3D Airborne Fluxgate Magnetometer for Geomagnetic Field Measurements	Terry Dyer	Antonio Hurtado	Jonathan Pritchard
Auld Fraser	Building A 3D Airborne Fluxgate Magnetometer for Geomagnetic Field Measurements	Terry Dyer	Antonio Hurtado	Jonathan Pritchard
Nikolov Boyko	Generation and detection of photon pairs in integrated circuits	Lucia Caspani	Konstantinos Lagoudakis	Keith Mathieson
Harrison Jack	Design, simulation and experiments of an Extended Interaction Oscillator based on a pseudospark sourced sheet electron beam	Adrian W. Cross	Colin Whyte	Kevin Ronald
Cairns Adam	A coherent synchrotron source based on a laser-plasma wakefield accelerator	Antoine Maitrallain	Mark Wiggins	Kevin Ronald
Ryan Calum	Plasma instabilities in intense laser-foil interactions	Martin King	James Feehan	Kevin Ronald
Braunholtz Rosie	Atomic Processes for Astrophysical Plasmas	Nigel Badnell	Wentao Li	Kevin Ronald
Harra David	Scattering of Relativistic Electrons off Electromagnetic Ion Cyclotron Waves	Bengt Eliasson	Craig W. Robertson	Mark Wiggins
Sahota Goran	Beam-driven Plasma Wakefield Acceleration (PWFA)	Bernhard Hidding	Ross Gray	Mark Wiggins
Afxenti Ivi	The theory of X-ray Free electron Lasers	Brian McNeil	James Feehan	Nigel Badnell
Derrick Taylor	Computational Modelling of X-ray Free Electron Lasers	Brian McNeil	Nigel Langford	Nigel Badnell
Docherty Lauren	Radiation Reaction	Adam Noble	Alan Young	Nigel Badnell
Tsina Ianna	3D imaging using high speed LEDs and a smartphone camera	Michael Strain	Oliver Henrich	Olaf Rolinski
Parker Grace	Photon velocity control on a silicon photonic chip	Michael Strain	Konstantinos Lagoudakis	Rob Martin
Jonusas Paulius	Tailoring multilayer semiconductor structures for hybrid quantum hardware	Konstantinos Lagoudakis	Paul Edwards	Rob Martin
Smith Lauren	Generating and using standing waves for applications in optical microscopy	Gail McConnell	Sebastian van de Linde	Stefan Kuhr
Gruber Heidi	Astigmatic mirror multipass absorption cells for long path length spectroscopy	Nigel Langford	David McKee	Stefan Kuhr
Svensson Linnea	Nonlinear Optical Loop Mirrors Based on 3 X 3 fibre optic couplers	Nigel Langford	Johannes Herrnsdorf	Stefan Kuhr
McLaughlin Beth	Grating magneto-optical trap modelling	Aidan Arnold	Michael Strain	Thorsten Ackemann
Alexakis Emmanouil	Observing beam propagation using fluorescence	Aidan Arnold	Olaf Rolinski	Thorsten Ackemann
Thompson Bethany	Investigation of polytypism in nitride semiconductors	Carol Trager-Cowan	Paul Edwards	Yu Chen
Nicol David	Ga2O3 solar-blind detectors and the quest for the optimal electrical contacts	Fabien Massabuau	Rob Martin	Yu Chen
Macintyre Hazel	Investigation of β -Gallium Oxide semiconductors for power electronics applications	Naresh Kumar	Alan Kemp	Yu Chen
Nicolson Ewan	Investigation of Gallium Oxide semiconductors for UV applications	Rob Martin	Johannes Herrnsdorf	Yu Chen
Dickson Alex	Space Radiation Reproduction and Testing	Bernhard Hidding	Samuel Wiggins	Zhengming Sheng
Duncan Craig	Space Radiation Reproduction and Testing	Bernhard Hidding	Samuel Wiggins	Zhengming Sheng